

Where Morphological Complexity Matters

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Abstract

It has been long observed that Latinate verbs in English cannot appear in verb-particle constructions, resultative constructions, and double object constructions. Recent research has revealed that, despite persistent counterexamples, the hypothesis invoking the morphological complexity of verbs is the most promising in dealing with the Latinate/native asymmetry (Coppock, 2009; Harley, 2008; Punske 2012, 2013). This paper aims to show two more cases of the asymmetry in favor of the morphological complexity hypothesis. Moreover, in an attempt to refine the hypothesis, an analysis will be provided within Distributed Morphology (Halle and Marantz, 1993). Specifically, it argues that the asymmetry can be reduced to the selectional properties of the acategorical roots involved. Some roots are obligatorily specified for a particular morpheme and combine with it to form a complex root, while others are not necessarily specified as such and they can either stand alone as a simple root or form a complex root.

1. Introduction

It has been long observed that Latinate verbs in English are typically bad with verb-particle constructions (e.g., Whorf, 1956; Di Sciullo and Williams, 1987; Harley, 2008), resultative constructions (Harley, 2008), and double object constructions (Pinker, 1989; Pesetsky, 1995; Harley, 2008), which are commonly found in Germanic languages and considered to be a family

of constructions (Snyder, 1995; Stromswold and Snyder, 1995; Snyder and Stromswold, 1997).

Various hypotheses have been proposed to derive the asymmetry observed between Latinate and native verbs in those constructions. Notable among them are the prosodic weight hypothesis, which takes the prosodic weight of verbs as a crucial factor (Grimshaw, 2005; Anttila, 2007), the two-lexicon hypothesis, which makes recourse to two different lexical classes, Latinate and native (Grimshaw, 2005),¹ and the morphological complexity hypothesis, which invokes the morphological complexity of verbs (Pinker, 1989; Harley, 2008).² While there are persistent counterexamples, the morphological complexity hypothesis, as it stands, is the most promising hypothesis in dealing with the Latinate/native asymmetry, as convincingly demonstrated in a series of psycholinguistic experiments on ditransitivity by Coppock (2009).

In this paper, assuming that the morphological complexity hypothesis is on the right track, I will attempt to further increase the plausibility of the hypothesis. Specifically, I will show that the Latinate/native asymmetry can be observed in two more empirical domains, along with the constructions mentioned above: exocentric V-N compounds and non-compositional verb phrase idioms. Moreover, an analysis will be presented within the framework of Distributed Morphology (henceforth, DM; Halle and Marantz, 1993). Specifically, I will argue that the difference between Latinate and native verbs can be reduced

¹ Grimshaw uses the terms Romance and Germanic for Latinate and native, respectively.

² Coppock's (2009) classification of the hypotheses is adopted.

to the selectional properties of the acategorical roots involved: some roots are obligatorily specified for a particular morpheme and form a complex root, while others are not necessarily specified as such and they can stand alone as a simple root or form a complex root, depending on the specification.

The organization of the paper is as follows: In the next section, I will briefly review the observed asymmetry between Latinate and native verbs in English. In section 3, I will demonstrate that the same asymmetry can be observed in two more empirical domains, exocentric V-N compounds and non-compositional verb phrase idioms. Moreover, an analysis will be provided to account for the Latinate/native asymmetry in terms of the selectional properties of the roots involved. Section 4 is a summary.

2. The Latinate/Native Asymmetry

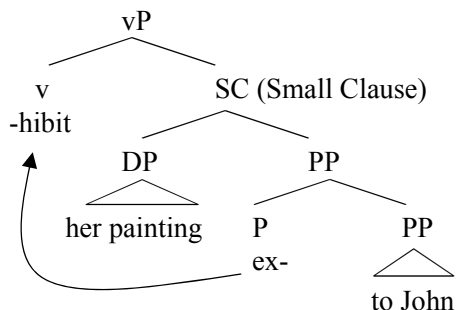
2.1 Verb Particle Constructions

As mentioned above, Latinate verbs cannot form a verb-particle combination in general, as shown by the following examples, taken from Harley (2008).

- (1) a. write it up *compose/arrange it up
- b. eat it up *consume it up
- c. finish it up *complete it up
- d. throw it out *discard it out
- e. show it off *exhibit it off

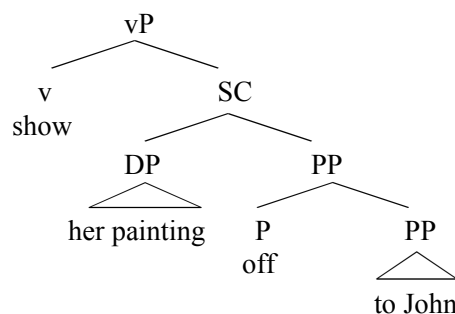
The robust contrast in (1) strongly suggests that Latinate and native verbs are significantly different at some level. To account for their difference, Harley (2008) proposes the following structures for Latinate verbs and particle verbs, respectively:³

- (2) Mary exhibited her painting to John.



³ Harley (2008) assumes that acategorical roots, e.g. $\sqrt{-hibit}$ and \sqrt{show} , are inserted into v (Manner Incorporation).

- (3) Mary showed off her painting to John.



For Harley, the two kinds of verbs are structurally the same, with the assumption that a Latinate prefix, *ex-* in (2), and a particle, *off* in (3), are the same, with the only difference being that the former incorporates into the verb, and the restriction on Latinate verbs can be explained in terms of structural competition: the particle and the prefix cannot co-occur because they occupy the same structural position. Thus, in one sense, this analysis directly implements Cowie and Mackin's (1979) pre-theoretical intuition that particle verbs and Latinate affixed verbs are on a par.

Straightforward as it may be, there are a number of Latinate verbs which run counter to the morphological complexity hypothesis. Consider (4) and (5).⁴

- (4) a. centrifuge it out
- b. partition it off
- c. telegraph back/in
- d. telephone around/back/in/over
- (5) a. divide it up
- b. collect it up
- c. conduct them away
- d. entice them away
- e. separate them out

(Shimada, 1985)

The verbs in (4) are instrumental denominal verbs and they may well receive a different analysis from the one in (2). Specifically, while they are

⁴ It should be made clear that monomorphemic Latinate verbs can form (idiomatic) verb-particle combinations, as in (i).

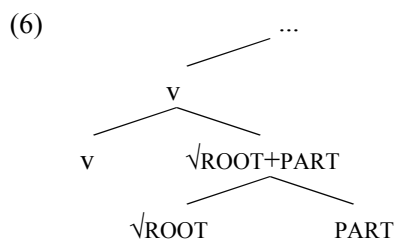
- (i) a. seize up
- b. serve it up, serve it out
- c. figure it out

This clearly shows that morphological complexity matters, not the etymological origin.

morphological complex, denominal verbs are immune to stress assignment in the verbal domain and retain their nominal stress pattern, which suggests that they are not in the domain where their morphological complexity matters.⁵

On the other hand, it appears the verbs in (5) do run counter to the morphological complexity hypothesis. Although I do not have a satisfactory answer at present as to how to accommodate them under the hypothesis, one thing worth pointing out is that the combinations in (5) (and those in (4)) do not have idiomatic interpretations, which are typically observed with verb-particle combinations, and the particles involved retain their meaning, either directional or aspectual (Jackendoff, 2002).

In an attempt to make (5) make look less strange, I propose that, in addition to (2) and (3), the following structure is also possible for Latinate verbs and particle verbs.^{6, 7}



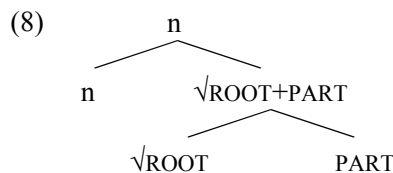
The structure in (6), where a root and a (prefixed) particle forms a complex predicate,⁸ has its basis on the consensus in the literature that verb-particle combinations are associated with two different configurations, which are reflected in their interpretations (Wurmbrand, 2000; Basilico, 2008, among others). Specifically, the compositional interpretation and the idiomatic/non-compositional interpretation are associated with the structure in (3) and the Germanic version of (6), respectively. Thus, I extend this distinction into Latinate verbs by assuming they can be associated with the structures in (2) and (6). This assumption makes it possible to have two particles, one idiomatic and the other compositional in the verbal domain,

thereby opening up the possibility for accounting for the combinations in (5).

Independent support for (6) as a possible structure for particle verbs comes from nominalized verb-particles, or exocentric V-P compounds, as in (7) below. It is highly unlikely to derive them by syntactic incorporation, which is assumed in (2) (Farrell, 2005).

- (7) a. a drop off
- b. a show off
- c. a break up
- d. a hold up
- e. a set back

Moreover, within DM, it is assumed that acategorial roots have their categorial status determined by category-defining functional heads such as *v*, *a* and *n* (Marantz, 2001), and the nouns in (7) are analyzed to have the following structure, parallel to their verbal counterparts.



According to Marantz (2001), those category-defining heads fix the edge of a cyclic domain whereby the interpretation of the root in the context of the categorizing functional head is negotiated, using the encyclopedic knowledge. This view of interpretation is quite congenial to the proposal in the verb-particle literature that idiomatic verb-particle combinations involve a complex head structure, as in (6). We will turn to this point below.

2.2 Resultative Constructions

The Latinate/native asymmetry can also be observed in the case of resultative constructions. Consider the following examples from Harley (2008).

- (9) a. fill it full *inflate it full
- b. squeeze it empty *compress it empty
- c. stab it dead *impale it dead
- d. eat yourself sick *devour yourself sick
- e. freeze solid *congeal solid

⁵ See Kiparsky (1982, 1997) and Arad (2005).
⁶ I remain agnostic about Harley’s treatment of Manner Incorporation, simply treating category-defining functional heads and acategorial roots as separate terminal nodes.
⁷ I assume, following Zhang (2007) and Basilico (2008), that a root can be complex before the categorizing head is merged.
⁸ The PART head gets realized as a prefix after syntax.

By assuming the structure as in (3), with a resultative predicate as the predicate of a small clause in place of a particle, Harley successfully accounts for the asymmetry in terms of structural competition.

It is worth mentioning in this connection that some resultatives can behave more like verb-particles in that a native verb and a resultative adjective form a complex predicate, without the help of Heavy NP Shift, as shown in (10).⁹ In such cases, it is appropriate to treat them as involving the structure in (6).

- (10) a. John cuts open the melon.
- b. The activists set free the lab rats.
- c. John wiped clean the table.

2.3 Double Object Constructions

Pesetsky (1995) made the observation that Latinate verbs are awkward with double objects, as shown in (11):

- (11) a. Susie gave Oxfam some canned food.
- a'. Susie gave some canned food to Oxfam.
- b.*Susie donated Oxfam some canned food.
- b'. Susie donated some canned food to Oxfam.
- c. Bill sent Sue his regards.
- c'. Bill sent his regards to Sue.
- d.*Bill conveyed Sue his regards.
- d'. Bill conveyed his regards to Sue.
- e. Mary showed the committee her findings.
- e'. Mary showed her findings to the committee.
- f.*Mary displayed the committee her findings.
- f'. Mary displayed her findings to the committee.
- g. Tom told Ben the story.
- g'. Tom told the story to Ben.
- h.*Tom recounted Ben the story.
- h'. Tom recounted the story to Ben.

(Pesetsky, 1995: 128ff.)

As is the case with verb-particles and resultatives, Harley accounts for the asymmetry in terms of structural competition by assuming that low Appl(icative)P (Pylkkänen, 2008) is involved in place of SC in (2).

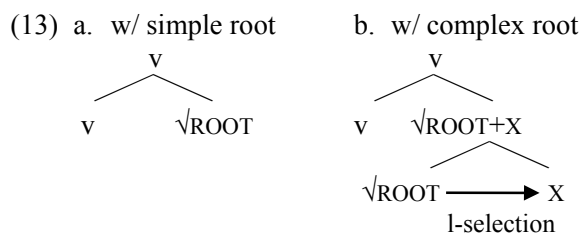
⁹ The examples are from Neeleman (1992), Svenonius (1994), and Williams (1997), respectively.

There are a number of attested counterexamples to the asymmetry. A partial list of Latinate verbs entering into the double object construction is given in (12), taken from Harley (2008). I have nothing insightful to say about these verbs at present, only hoping to accommodate them under the morphological complexity hypothesis.

- (12) allot, assign, bequeath, concede, extend, reduce, etc.

3. More on the Asymmetry

So far, we have considered the observations made in the literature pertaining to the Latinate/native asymmetry. In the three cases we saw, the asymmetry is attributed to the difference in the structure of the root domain between Latinate and native verbs. By and large, Latinate verbs involve complex roots, while native verbs simple roots. This difference is ultimately reduced to the selectional properties of Latinate roots. Specifically, the type of selection that is relevant is l(exical)-selection, i.e., selection for particular lexical items (Pesetsky, 1995; Everaert, 2010).¹⁰ Thus, particular Latinate roots are obligatorily specified for a set of particular morphemes and combine with them to form complex roots, as in (13)b; native roots can also be specified as such, as in the case of idiomatic verb-particle constructions, but they can be unspecified and stand alone as a simple root, as in (13)a, as well. These roots undergo categorization by v, also shown in (13).



Once we accept the structures in (13), we can immediately explain the fact that Latinate verbs are

¹⁰ L-selection is defined in Everaert (2010:94) as follows:
 (i) a. L-selection involves the selection by one terminal element α of another terminal element β where the projection of β is in the syntactic domain of α .
 b. The syntactic domain of head α is the set of nodes contained in $\text{Max}(\alpha)$ that are distinct from and do not contain α .

more restricted in distribution than native verbs. Thus, simple roots, as in (13)a, can combine with some morpheme to form a complex root, as in (13)b, but the latter cannot form a (more) complex root because they are already complex.¹¹ In this sense, the structure in (13)b reflects the view that verb-particle combinations and prefixed Latinate verbs are on a par.

This said, we will see in this section two more cases of the Latinate/native asymmetry and that the above difference in structure plays a crucial role in deriving the asymmetry.

3.1 Exocentric V-N Compounds

Recall that in section 2.1, we discussed exocentric V-P compounds and that they are associated with idiosyncratic interpretations. In what follows, I will argue that essentially the same analysis applies to exocentric V-N compounds, with twists on the interpretation.

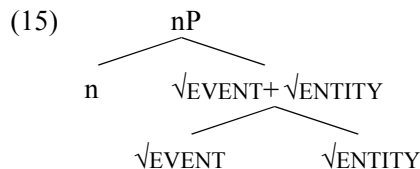
First, let us see the relevant data. Consider (14).

- (14) a. breakwater *disintegrate-water
- b. cutthroat *incise-throat
- c. killjoy *eliminate-joy
- d. kiss-ass *osculate-ass
- e. turnkey *rotate-key
- f. scarecrow *intimidate-crow

While it is impossible to argue for the absence of something, the examples in (14) give you the feel that Latinate verbs cannot form V-N compounds.

Thus, I claim that the gap is not accidental and Latinate verbs are systematically ruled out as the V part of a V-N compound.¹² Moreover, given the assumption on categorization in DM, I argue that V-N compounds do not involve categorized morphemes, [*v* √ROOT] or [*n* √ROOT], but a root naming an event and another root naming an entity.^{13,14} Viewed this way, an exocentric V-N

compound is a nominalization with a complex root, as in (15):



This straightforwardly explains why Latinate verbs cannot form V-N compounds: a root naming an event must be a simple root, as in (13)a, not a complex one, as in (13)b.

Given the observation that the N of a V-N compound is construed as the object of the V, one might wonder how the interpretation can be derived from the structure in (15). I claim the observed interpretation is not obtained from the rigid argument structure of the V, but through negotiation with the encyclopedic knowledge relating to the event root involved at the conceptual interface (Marantz, 2001; Barker, 1998). Moreover, it has also been observed the compound noun itself is construed as agentive or instrumental, denoting a human, an animal or a thing. I assume that the nominalizing head involved in the compound denotes an entity which is construed as participating in an event of the type related to the episodic content of the complex root. Given this, since the complex root involved roughly corresponds to an event which involves a proto-patient, the denotation of the compound noun can only be construed as participating in the event as a proto-agent, i.e., as agentive or instrumental. Thus, we can provide an explanation for the interpretation of V-N compounds without making recourse to the argument structure of the V.

Although our primary focus is on English in this paper, what we have argued for in the case of exocentric V-N compounds seems to hold in other languages as well. For instance, in French, a complex root cannot appear as the V part of a V-N compound. Consider the following:¹⁵

- (16) a. grille-pain b. ouvre-boîte
- grill-bread open-can
- 'toaster' 'can opener'

¹¹ No recursive property is observed in this domain. This indicates that the root domain is relevant to the phenomena.

¹² Here, terms such as “V” and “N” are used as descriptive cover terms, not theoretical entities.

¹³ I follow Harley (2005) and Anagnostopoulou and Samioti (2014) that roots can be classified into three ontological types: events, states, and entities.

¹⁴ It is possible to assume that the nominal in a compound is categorized as a noun by n, if one adopts a layered structure for nominal complex DP hypothesis where DP contains Num(ber)P, which contains NP, here nP.

¹⁵ The glosses are simplified in such a way that theme vowels, which are at the end of the verb stem, are treated as part of the verb stem.

- | | | |
|------------------|-----------------------|--------------------|
| c. tourne.vis | d. leche-vitrine | e. spill the beans |
| turn.screw | lick-window | f. pull strings |
| ‘screwdriver’ | ‘window shopping’ | g. break the ice |
| e. gratte-papier | f. coupe-gorge | h. kick the habit |
| scratch-paper | cut-throat | |
| ‘pen pusher’ | ‘dangerous back ally’ | |

- (17) a. **remue-menage**
 move-housework
 ‘commotion, bustle’
 b. **reveille-matin**
 wake.up-morning
 ‘alarm clock’

Although the examples in (17) run counter to the generalization and need to be accommodated in some way or other under the morphological complexity hypothesis, it largely holds true in French as well that a complex root cannot appear as the V part of a V-N compound.

The evidence from exocentric V-N compounds is significant in that they are not particular to Germanic languages, unlike the cases we have seen so far, i.e., resultatives, verb-particles, and double object constructions, clearly showing that the asymmetry can be observed with non-Germanic languages as well. Thus, although we have referred to the observed asymmetry as the Latinate/native asymmetry, it is ultimately not about the vocabulary type or etymological origin, but rather about the complexity of the verb/event root involved, as depicted in (13) above.

3.2 Verb Phrase Idioms

The other hitherto unnoticed case of Latinate/native asymmetry involves verb phrase idioms (henceforth, VP idioms). It goes without saying that English has countless VP idioms, but, when you examine them more closely, you notice that you seldom find idioms based on Latinate verbs. This may sound trivial due to the fact that many idioms involve verb-particle combinations, which are mostly incompatible with Latinate verbs, as we have seen above. Yet the observation holds in other cases which involve a verb and its object as well. First, consider (18):

- (18) a. kick the bucket
 b. bite the dust
 c. carry the can
 d. jump the shark

The native verb idioms in (18) can be classified into two classes: non-compositional idioms, as in (18)a–(18)d, and compositional idioms, as in (18)e–(18)h. Compositional idioms are said to have meanings distributed among their parts and the correspondences between literal and idiomatic meanings can be made, while no such correspondences hold in non-compositional idioms and the idiomatic expression as a whole is associated with a particular idiosyncratic meaning (Nunberg et al., 1994).

VP idioms with Latinate verbs are hard to find, but the following examples can be considered to be idioms in terms of conventionality.

- (19) a. deliver the goods
 b. connect the dots
 c. contemplate one’s navel
 d. deserve a medal (for doing)
 e. reinvent the wheel
 f. recharge your batteries
 g. promise someone the moon

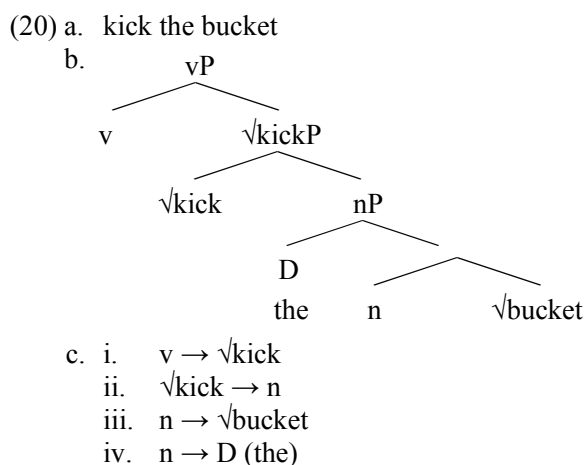
However, these examples are highly compositional, and the literal meanings of the parts of these idioms play an important role in interpretation in that they are mapped to the idiomatic meanings. To put it differently, in (19), the idiomatic meanings cannot be obtained without accessing the literal or original meanings.

Thus, the asymmetry in VP idioms can be stated as follows: idioms with native verbs can be compositional or non-compositional, while those with Latinate verbs can only be compositional.

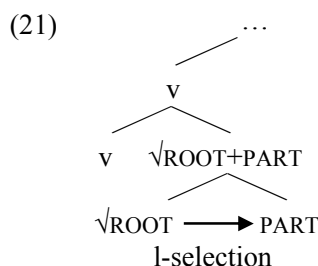
Since there are not so many non-compositional VP idioms to begin with, the gap may be accidental. Yet a paucity of compositional idioms is also a telling piece of evidence that shows that Latinate verbs adhere to their literal meanings, which are in some sense idiomatic to being with.

This asymmetry can also be captured in terms of the structural difference between simple and complex roots in (13). In fact, a coherent picture can be drawn of the incompatibility of non-compositional VP idioms with Latinate verbs by invoking the l-selectional properties of the

morphemes involved. Specifically, contemporary accounts of idioms hold that the structural constraints on idioms can be reduced to the l-selectional properties of particular morphemes (O’Grady, 1998; Everaert, 2010, Bruening, 2010), and also that a chain of selectional relations, which are structurally established by means of head-to-head relations, provides the basis for special, idiomatic meaning (O’Grady, 1998). Thus, an idiom like *kick the bucket* under the current assumptions has the following chain of relations, as given in (20)c, based on the structure in (20)b.



Turning to Latinate verbs with complex roots, as in (13)b, repeated here as (21), we can see why Latinate verbs do not form non-compositional idioms: they are idioms in their own right, with no further material involved. Specifically, an event root l-selects a particular prefix, represented as PART in (21), which l-selects nothing. As we have seen above, the complex root, or a chain of l-selection in this case, is negotiated in the context of v by using the encyclopedic knowledge in order to derive special meaning. This analysis can be regarded as a contemporary rendition of Katz and Postal’s (1963) intuition pertaining to what they call lexical idioms.



Note that the compositional idioms as in (19) have the original meanings, read off from the structure in (21), mapped into their idiomatic meanings in the context of some other particular morphemes.

VP idioms are not particular to Germanic languages. Once again, examples from French are given in (22) and (23) below. Note that the examples in (23) do not run counter to the morphological complexity hypothesis, as long as they are compositional idioms.

- (22) a. casser sa pipe
 break one’s pipe
 ‘kick the bucket, die’
 b. griller un feu rouge
 grill a fire red
 ‘run a red light’
 c. lever le coude
 raise the elbow
 ‘enjoy a drink’
- (23) a. promettre la lune
 promise the moon
 ‘promise the moon’
 b. retourner sa veste
 return one’s jacket
 ‘become a turncoat’

4. Summary

Drawing heavily on Harley (2008), we have attempted in this paper to further increase the plausibility of the morphological complexity hypothesis. Specifically, I have shown that exocentric V-N compounds and non-compositional VP idioms display the Latinate/native asymmetry and accounted for the asymmetry in terms of the structural difference between simple and complex roots, as given in (13). I have also argued that the difference in (13) should be ultimately attributed to the l-selectional properties of the roots involved. Specifically, although some roots are specified for particular morphemes and form complex roots, others have no intrinsic l-selectional properties and hence stand alone as simple roots. Such simple roots are commonly found in English and other Germanic languages, and they can enter into complex predicate formations such as resultatives, verb-particles, and double object constructions. Moreover, as we have shown above, simple roots

can form exocentric V-N compounds and non-compositional VP idioms, both of which can be in a way regarded as “complex root formation.” On the other hand, roots with their intrinsic 1-selectional properties obligatorily form complex roots by combining with particular morphemes, e.g., prefixes in Romance languages. Such roots, as they can be complex only in the specified ways, cannot enter into the aforementioned formations freely.

As we have seen above, there are a number of attested counterexamples to the morphological complexity hypothesis. Hopefully, further inquiry into such examples will lead to refinement—rather than confutation—of the hypothesis.

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